

Thus the peculiarity of *L. americanus* consists in the development of the feet relatively to the body generally, as contrasted with other species. Although only weighing 3 lb. in New Brunswick, against 6½ lb. in southern districts, with a corresponding diminution in the dimensions of the body, the feet yet retain fully as great development in one as the other. *L. timidus*, with an average weight of 8 lb., and length 26 inches, has a hind foot only 5½ inches long; whilst *L. variabilis*, with an average length of body of 23 inches, has also 5½ inches. *L. glacialis*, found in common with the American, 7 lb. weight, and 22·6 inches long, has dimensions as follows:—from wrist-joint to end of claw 2 inches 9 lines, heel to point of middle claw 5 inches 9 lines. Not only is the foot of *L. americanus* proportionately lengthened, but a remarkable degree of lateral extension is allowed between the metacarpal and metatarsal bones, with great laxity of the web membrane. Inhabiting the woody districts, where the snow remains deep and soft during the greater part of the winter, the advantage of such a modification in the feet, especially when combined with the lengthened stiff winter hair on the treading-surface, is apparent, allowing it to pass over the softest snow with the slightest impress, and thus giving it the power of eluding by swiftness its numerous enemies. A recent impress of these natural snow-shoes gave the following shape and dimensions:—Fore feet oval, each 3½ inches long by 2 inches broad. Hind feet egg-shaped (large end anteriorly), each 6 inches long by 3 inches in front and 1½ inch behind.

The average snow-shoes adapted to an ordinary-sized man have a superficial area 5½ inches for each pound in weight, which is extended in this Rodent to 11·4 inches. In the Hudson's Bay Territory *L. glacialis* and *L. americanus* exist in the same district, the one inhabiting the open barrens, the other the soft snowy woodlands.

It appears much to be desired that the modifications in the feet and winter coat of this Rodent, under different latitudes and variations of natural conditions, should be accurately traced out, inasmuch as the indications are that, both in the one and the other, they fully illustrate the capability of external circumstances to call forth structural changes, placing the animal frame in harmony with the surrounding natural features, and allowing it to compete advantageously with its numerous and powerful enemies in the great struggle for existence.

3. Notes on the Habits of the Collared Plain Wanderer (*Pedionomus torquatus*, Gould). By W. VINCENT LEGGE, F.Z.S.

Mr. Gould says this bird is not uncommon in South Australia, where it inhabits the plains of the interior; but I think he does not record its presence in Victoria. It makes its appearance in

the vicinity of Melbourne in the summer, coming down from the interior along with *Coturnix pectoralis*, probably for the purpose of breeding, and departing northward, I should say, about April.

Much of the country round Melbourne, including the district called the Keilor Plains, is in features suited to the habits of the "Collared Plain Wanderer;" and one or two individuals fall every season to the gun of the sportsman, as it is found in the same localities as the Pectoral Quail. It was in the vicinity of the Keilor Plains that I met last January with this singular bird; and as the locality I found it in was a field of short English grass, I had, fortunately, ample opportunity of observing minutely for some time its actions and deportment. In these it has every resemblance to a grallatorial, and, as far as can be seen from short observation, very little to a rasorial bird. It runs at a medium pace hither and thither, checking itself and pausing at times, at the same time twisting about its high-carried head like a member of the Plover family. When in a state of quiescence, it holds itself erect with its head raised. Its mode of flight, however, is entirely peculiar to the bird itself; it rises suddenly, and for a little space proceeds with a dipping Finch-like motion, and then settles down into a steady fluttering flight, reminding one somewhat of a young Lark. A very peculiar feature was exemplified in a second individual (the mate of the bird the actions of which I have just described), which, after I had flushed it several times, flew off and perched on the lower rail of a "post-and-rail" fence; it remained in this position for a couple of minutes, and then again took flight.

What I would wish here to call particular attention to is the egg of *Pedionomus torquatus*, which I took perfect in shape and coloration out of the specimen now before me. It was very large for the bird and was Plover-like, being pyriform and of the exact shape and dimensions of the egg of *Charadrius hiaticula*. It was of a greenish white ground-colour, blotted and speckled, principally at the larger end, and faintly streaked throughout, with umber-brown and lilac-grey. In form, then, the egg resembles that of a Wader, though the coloration is somewhat peculiar.

As some authors arrange this bird in the family of the *Turnicidæ*, while Bonaparte regards it as belonging to *Coturnix* (solely on account of the presence of the hallux, I suppose), it seems a disputed point where to place it exactly. To the mind of the inquiring though inexperienced naturalist the subject presents some difficulties, as the bird appears intermediate between the rasorial and grallatorial orders, and to belong to a separate group. Its habits and actions, the shape of its head and bill (which latter is longer than that of other members of the Bustard-quail family), its length of leg (especially that of the tibial joint, so much of which is bare), the delicate structure of the leg, moreover, and its feet, its Bustard-like upper plumage, and chiefly its egg place it somewhat near the Grallatores; while its diminutive size, the contour of its body, and the Quail-like tail show its affinities to the rasorial birds.

The following are a few of the exact measurements, taken from the specimen in my collection:—

	inch.
Bill, from gape to tip of upper mandible	$\frac{3}{4}$
Tibia	$1\frac{1}{2}$
Bare portion of tibia, from tarsal joint	$\frac{1}{2}$
Tarsus	1
Middle toe	1

Is it not probable that other members of a group in which this bird might be placed may in future be found in the unknown north-western districts of the continent? The fact of representation of species between the north and south is true with regard to most forms of the Australian avifauna.

4. Report of a second Collection of Fishes made at St. Helena by J. C. Melliss, Esq. By Dr. ALBERT GÜNTHER, F.R.S., F.Z.S., &c.

(Plate XVI.)

The British Museum received in the month of June of last year a second collection of fishes made at St. Helena by J. C. Melliss, Esq. With regard to the preservation and number of the specimens it proved to be as valuable as the first, of which an account is given in the 'Proceedings' of this Society (1868, pp. 225–228). I have now also examined the Eels, which are evidently very well represented in that part of the ocean. Their descriptions will be found in the eighth volume of the 'Catalogue of Fishes;' but I may mention that the new genus *Myroconger* is of great interest, being a *Muraena* with pectoral fins. The following list contains twenty-one species, which raise the total number of fishes collected by Mr. Melliss to fifty-six. As in my former paper, I have marked the localities from which the species were previously known, thereby indicating the affinity of this fauna to that of other parts of the Atlantic:—

1. *Polymixia nobilis*, Lowe. Madeira.
2. *Myripristis jacobus*, C. & V. West Indies, Brazil.
3. *Chætodon dichrous*, sp. n.
4. *Auxis rochei*, Risso. Tropical seas.
5. *Caranx crumenophthalmus*, Bl. Tropical seas.
6. *Caranx hippos*, L. Tropical seas.
7. *Antennarius pinniceps*, C. & V. Tropical seas.
8. *Antennarius multiocellatus*, var. β , Gthr. Caribbean Sea.
9. *Acanthurus chirurgus*, Bl. Atlantic coasts of Tropical America and Africa.
10. *Heliastes marginatus*, Castel. Coasts of Brazil and California.
11. *Saurus atlanticus*, Johnson. Madeira, Zanzibar.
12. *Saurus myops*, Forst. Tropical seas.